

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF PENNSYLVANIA**

CARNEGIE MELLON UNIVERSITY,)	
)	
Plaintiff,)	
)	
vs.)	Civil Action No. 09-290
)	Judge Nora Barry Fischer
MARVELL TECHNOLOGY GROUP, LTD.)	
et al.,)	
)	
Defendants.)	

MEMORANDUM ORDER

Jury selection in this patent infringement action commenced on November 26, 2012. Presently before the Court is Marvell's "Motion for Reconsideration re: Court's Order Sustaining CMU's Objections to Disputed Defendant's Exhibit DX-189 (Docket No. 153)". (Docket No. 660). CMU opposes this motion and filed a "Preliminary Response in Opposition". (Docket Nos. 664). The Court heard argument on the topic again and again during trial conferences November 26-30, 2012. (Docket Nos. 666, 669, 671, 673, 674). The Court writes now to explain its reasoning in granting reconsideration and admitting DX-189. For the following reasons, Marvell's motion [660] was GRANTED on the record during the proceedings on November 30, 2012. (Docket No. 674 at 36-37).

Throughout this case, CMU alleges that Marvell has infringed two of its patents, U.S. Patent Nos. 6,201,839 (the "'839 Patent") and 6,438,180 (the "'180 Patent") (collectively, the "CMU Patents").¹ The patents-in-suit are generally directed to sequence detection in high

¹ As the parties are well aware of the factual and procedural background of this case, the Court will limit its discussion to the background necessary for the resolution of the current motion. For further detail regarding same, *see* Docket Nos. 306, 337, and 441.

density magnetic recording devices, and more specifically, to high density magnetic recording sequence detectors. *See* '839 Patent 1:20-23. Both patents claim priority to a May 9, 1997 provisional application. *See* '839 Patent; '180 Patent. The '180 Patent is a continuation-in-part of the '839 Patent. *See* '180 Patent. The named inventors of the patents are Dr. Aleksandar Kavcic and Dr. Jose Moura. *See* '839 Patent; '180 Patent.

Marvell's motion for reconsideration addresses the Court's decision to sustain CMU's objection to Defendants' exhibit DX-189, a 2001 email exchange between Dr. Kavcic and Mr. Gregory Silvus of Seagate.² (Docket Nos. 653, 660). The Court held a two day pretrial conference to address all of the disputed exhibits in this case during which it heard argument in regards to this exhibit DX-189. (Docket Nos. 636, 638, 645, 648). Since then the Court has heard additional argument on DX-189 during the trial. (Docket Nos. 666, 669, 671, 673, 674).

² Both parties are well aware of the contents of the Kavcic email in question. The email is a discussion between Dr. Kavcic and Gregory Silvus of Seagate in 2001, (with Horacio Mendez copied and Dr. Jose Moura blind copied), where in relevant part, Dr. Kavcic writes:

Our patent does not use the words 'noise prediction', but the circuits are the same as in Park's and Moon's 'noise prediction'. We derived the equations from the autoregressive model (it is a known fact that the autoregressive model equations and linear prediction equations are the same, so the two methods are the same). Yes, we address the 'data dependent' nature of the algorithm. We call it the 'signal dependent' nature. The data dependence is in the trellis and NOT in the post processor. Actually, the examiner had us write extra material to make sure that we do not use a post processor, which is a patent by Kelly Fitzpatrick.

(Docket No. 640 Ex. 45).

The exhibit has been labeled several different ways; it is located on the docket at Docket No. 497 Ex. 2 and Docket No. 640 Ex. 45. Moon and Park authored "Pattern-Dependent Noise Prediction in Signal-Dependent Noise," featured in the IEEE Journal on Selected Areas in Communications, vol. 19, no. 4, pp. 730-743, April 2001. (Plaintiff's Exhibit 231). The Kelly Fitzpatrick patent at U.S. Patent No. 5,689,532, along with the Knudson patent U.S. Patent No. 5,521,945, were part of the validity discussions in regards to the patents-in-suit during the discovery and pretrial periods in this case. (Plaintiff's Exhibit 167; Plaintiff's Exhibit 1102). At this time, however, neither of these exhibits is listed by either party for use at trial. (Docket Nos. 615, 640).

Additionally, this email has been addressed on two previous occasions. First, the email was advanced during the Court's claim construction hearing as Marvell Exhibit A. (Docket No. 175 at 39) After briefing and argument, the Court gave "no weight to this email" in its opinion as it was extrinsic evidence unknown to a person having ordinary skill in the art and contradictory to the intrinsic evidence. (Docket No. 175 at 39); (Docket Nos. 78-84, 89-91, 93-95, 104-106, 128-130, 135). Next, DX-189 was addressed in CMU's Motion in Limine No. 2 to Preclude Irrelevant or Highly Prejudicial Evidence or Argument, at which time, after extensive briefing and argument on the issue, the Court denied CMU's motion. (Docket Nos. 496, 497, 568, 579, 590, 591, 614). At the time, based on the CMU's proffer concerning Dr. Kavcic's anticipated trial testimony (Docket No. 538), the Court found "this email relevant given that the Plaintiff, CMU, intends to call Dr. Kavcic as a witness to testify regarding his invention and his opinions on same". (Docket No. 614 at 3). At the exhibit hearing, however, CMU proffered that Dr. Kavcic would not testify about the facts of the email. (Docket No. 664). Accordingly, Marvell moved for reconsideration of the Court's decision to sustain CMU's objection to this exhibit in its exhibit rulings. (Docket No. 660).

Their counsel argue the email is relevant to the claim of willfulness and the "copying" story argued by CMU.³ (*Id.*) CMU, in turn, responds that this exhibit is prejudicial and irrelevant

³ At oral argument, Marvell's trial counsel, Mr. Madison, also argued that the email was an admission of a party opponent. However, Dr. Kavcic while at one point a student at CMU was at the time of this email a faculty member at Harvard University. (Docket No. 640 Ex 45). (He is now a faculty member at the University of Hawaii.) It is CMU's policy that half of any proceeds generated from patents are shared with the inventors, in this case, Dr. Kavcic and Dr. Moura. (Docket No. 671 at 194). Despite same, the Plaintiff in this case is Carnegie Mellon University, not the individual inventors. While Dr. Kavcic may be an interested party, he is not the party opponent as defined under 801(d)(2). FED. R. EVID. 801(d)(2). *Arizona v. City of Cottonwood*, 2012 WL 2976162 (D. Ariz. July 20, 2012); *Arrowood Indem. Co. v. Hartford Fire Ins. Co.*, 774 F. Supp. 2d 636, 645 *reconsideration denied*, 802 F. Supp. 2d 536 (D. Del. 2011)("[R]ule

to the issues of infringement, willfulness, and copying.⁴ (Docket No. 664). Accordingly the Court is required to employ the balancing test under Rule 403, which states that the “Court may exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.” FED. R. EVID. 403. *Toledo Mack Sales & Service, Inc. v. Mack Trucks, Inc.*, 386 F.App'x. 214, 218 (3d Cir.2010) (“A district court is accorded wide discretion in determining the admissibility of evidence under the Federal Rules.”). Balancing these competing concerns, the Court concludes that the challenged evidence is not substantially outweighed by the factors under Rule 403, especially given its probative value and the ability of both parties to question Dr. Kavcic on the exhibit.⁵

This motion for reconsideration is timely pursuant to the Court’s Practices and Procedures as “[a]ny Motions for reconsideration shall be filed within seven (7) days”. *See Practices and Procedures of Judge Nora Barry Fischer, Effective March 23, 2010, available at: http://www.pawd.uscourts.gov/Documents/Judge/fischer_pp.pdf*.⁶ Motions for reconsideration are granted sparingly however “[b]ecause federal courts have a strong interest in finality of

801(d)(2)(A) is inapplicable, as Messick, Hawthorne, and Stanziale are not parties to the instant action in their personal capacities.”)

⁴ CMU does not object to this email as hearsay. (Docket No. 640). Even if a hearsay objection was brought, as Marvell proffers the email, it is not offered to “prove the truth of the matters” that Dr. Kavcic asserts in this email exchange but to show his beliefs or understandings at the time he wrote the email. FED. R. EVID. 801(c)(2); *Haagensen v. Pennsylvania State Police*, 2012 WL 3125183 (3d Cir. Aug. 2, 2012).

⁵ To that end, the Court allowed redirect, recross, sur-redirect and sur-recross of Dr. Kavcic. (Docket No. 674).

⁶ The Court’s order regarding disputed exhibits (Docket No. 653) was filed on November 21, 2012, and this motion was filed on November 24, 2012. (Docket No. 660).

judgments.” *Jacobs v. Bayha*, Civ. A. No. 07-237, 2011 WL 1044638, at *2 (W.D.Pa. Mar. 18, 2011). “Because of the interest in finality, at least at the district court level ... the parties are not free to relitigate issues the court has already decided.” *Williams v. City of Pittsburgh*, 32 F.Supp.2d 236, 238 (W.D.Pa.1998) (citing *Rottmund v. Continental Assurance Co.*, 813 F.Supp. 1104, 1107 (E.D.Pa.1992)). The purpose of a motion for reconsideration is ““to correct manifest errors of law or fact or to present newly discovered evidence.”” *Max’s Seafood Café v. Quinteros*, 176 F.3d 669, 677 (3d Cir. 1999) (quoting *Harsco Corp. v. Zlotnicki*, 779 F.2d 906, 909 (3d Cir. 1985)). A Court may grant a motion for reconsideration if the moving party shows: (1) an intervening change in the controlling law; (2) the availability of new evidence which was not available when the court issued its order; or (3) the need to correct a clear error of law or fact or to prevent a manifest injustice. *Max’s Seafood Café*, 176 F.3d at 677 (citing *North River Ins. Co. v. Cigna Reinsurance Co.*, 52 F.3d 1194, 1218 (3d Cir. 1995)).

Marvell’s motion seems to rely on the third prong of the reconsideration standard, as they present no new case law or evidence in their motion. (Docket No. 660). The Court has reviewed all the briefs and argument in this case, both from the earlier claim construction and motion in limine hearings and that which is presently before the Court.⁷ In addition, the Court has reviewed all of the cases cited by both parties.

First, as the Court has stated and the parties agree, Dr. Kavcic’s views on the scope of the patents are extrinsic evidence, irrelevant to the Court’s claim construction. *see Vitronics Corp. v. Conceptronic, Inc.* 90 F3d 1576, 1584 (Fed. Cir. 1996) (“Nor may the inventor's subjective intent as to claim scope, when unexpressed in the patent documents, have any effect. Such testimony cannot guide the court to a proper interpretation when the patent documents themselves do so

⁷ Docket Nos. 78-84, 89-91, 93-95, 104-106, 128-130, 135, 175, 176, 496, 497, 568, 579, 590, 591, 614, 660, 664, 666, 669.

clearly.”); (Docket Nos. 175, 653). Indeed, Marvell currently argues that it “does not intend to rely on DX-189 for claim construction purposes” (Docket No. 660 at 1). CMU challenges this statement, in saying that Marvell will, in fact, use this exhibit to undercut the Court’s claim construction and argue non-infringement. (Docket No. 664 at 3-4). Since Dr. Kavcic is not proffered as an expert witness, but only as a fact witness with personal knowledge of the patents and the inventions, he should not be opining about infringement or validity in any event.⁸ In light of CMU’s proffer as to Dr. Kavcic’s testimony and Marvell’s statement that it will not rely on DX-189 for claims construction, as well as pertinent authority⁹, the Court finds the email irrelevant, to the issues of alleged infringement.

Secondly, the Court finds that the email is not relevant to the issue of willfulness, under the subjective test.¹⁰ See *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 682 F.3d 1003, 1006-08 (Fed. Circ. 2012); *In re Seagate Technology LLC*, 497 F.3d 1360, 1368-71 (Fed.

⁸ As the Federal Circuit recognized in *Voice Technologies*,

“an inventor is a competent witness to explain the invention and what was invented to be conveyed by the specification and covered by the claims. The testimony of the inventor may also provide background information, including explanation of the problems that existed at the time the invention was made and the inventor’s solution to these problems.”

Voice Technologies Group, Inc. v. VMC Systems, Inc., 164 F.3d 605, 616 (Federal Circuit 1999). However because Dr. Kavcic has not been proffered as an expert witness under Rule 702 and did not prepare expert reports in accord with the procedures set forth under Rule 26 of the Federal Rules of Civil Procedure, he was not permitted to render expert opinions.

⁹ “Extrinsic evidence “may be used only to help the court come to the proper understanding of the claims; it may not be used to vary or contradict the claim language.” *MEMS Tech. Berhad v. Int’l Trade Comm’n*, 447 F. App’x 142, 149 (Fed. Cir. 2011) (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1584 (Fed.Cir.1996)).

¹⁰ The Court previously ruled on Marvell’s Motion *in Limine* No. D3 Re: Precluding CMU from Introducing Evidence of Willfulness” (Docket No. 485), that the parties shall be permitted to present their evidence of willfulness at trial. (Docket No. 601).

Cir. 2007)(*en banc*). This exhibit is a private email that Marvell does not argue was known to Marvell, or anyone beyond Dr. Silvus, Dr. Kavcic, Dr. Moura, or Mr. Mendez before this litigation, so as it is irrelevant as to what Marvell believed at the time of alleged infringement.¹¹ (*Id.*) However, Marvell also argued during the latest oral argument that proof of Dr. Kavcic's beliefs about his patents supports their own objectively reasonable position as a litigant, that they did not copy and that they did not act willfully. (Docket No. 669 at 137).

Third, in light of *Seagate* and *Bard*, the Court must determine, "based on the record ultimately made in the infringement proceedings," whether a "reasonable litigant could realistically expect" their legal defenses to succeed. *Bard*, 682 F.3d at 1008. Given the lack of further guidance by the Federal Circuit or other district courts since *Bard*¹² was handed down, at this juncture, the Court is still unsure of the scope of facts it will ultimately consider when ruling on objective willfulness. Therefore, this email may aid the jury in determining the underlying facts relevant for the Court's decision on "objective willfulness". *See* Fed. R. of Evid. 401.

¹¹ Of note, Dr. Silvus was never deposed in this case.

¹² The precedential value and repercussions of *Bard* are currently being debated among judges on the Federal Circuit. Recently in the Federal Circuit's *en banc* decision *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.* the five member minority, written by Judge Moore stated "*Bard's* holding that the objective prong "*should always* be decided as a matter of law by the judge" cannot be reconciled with *Powell*. *Bard*, 682 F.3d at 1006–07 (emphasis added). For reasons similar to those discussed below, this court should also revisit *Bard en banc*." 2012 WL 6054758 at *5 (Fed. Cir. Dec. 6, 2012). Judge Reyna for another minority dissent agreed that *Bard* was "a puzzling conclusion...that we can transform a question of fact into a mixed question of law and fact in order to exclude a jury from deciding what conduct is reasonable". *Id.* at *12. Similarly in Judge Mayer's original panel dissent he concluded "that because *Bard* usurps the fact-finding role of the trial courts and is plainly inconsistent with our precedent it is an outlier and of no precedential value. *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, 687 F.3d 1300, 1320-21 (Fed. Cir. 2012). To add further uncertainty, the case *Mondis Tech. v. Hon Hai Precision Industry Co., Ltd* (2012-1004) addressing similar questions of "objective willfulness", is set for oral argument in front of the Federal Circuit on January 8, 2013. *See* 2012 WL 3611241 (C.A.Fed.).

Fourth, as the Court has stated, this exhibit can be and was used to cross examine Dr. Kavcic to test his credibility, as credibility is always an issue for any witness, or if he “opens the door” to such testimony.¹³ See *Kirby v. J.C. Penney Corp., Inc.*, 2009 WL 3651201 (W.D. Pa. Oct. 29, 2009); *United States v. Abel*, 469 U.S. 45, 52, 105 S.Ct. 465, 469, 83 L.Ed.2d 450 (1984); *Douglas v. Owens*, 50 F.3d 1226 (3d Cir.1995). In its Motion in Limine Opinion (Docket No. 614), the Court relied on CMU’s proffer that Dr. Kavcic may testify about a number of subjects, including the technology underlying the patented material, “any of the subjects discussed during his deposition” (Docket No. 538). The Court found the email relevant at that hearing given this general proffer, and “to the extent CMU presents argument regarding the invention and inventor’s understanding of the patent”. (Docket No. 614). In its current brief and at argument, CMU proffered that Dr. Kavcic would not testify about the facts of the email and would comply with the Court’s directive that Kavcic be limited to offering lay opinion testimony under Rule 701¹⁴ with respect to his understanding of the scope of the patents at the time that the patent applications were made.¹⁵

¹³ *Healy v. Haverford Twp.*, 462 F. App’x 224, 227 (3d Cir. 2012) (“the doctrine of ‘opening the door,’ sometimes referred to as ‘curative admissibility,’ provides that when one party introduces inadmissible evidence, the opposing party thereafter may introduce inadmissible evidence to rebut or explain the prior evidence.” *Government of Virgin Islands v. Archibald*, 987 F.2d 180, 187 (3d Cir.1993)). Similarly the Court used this term throughout trial, to remind counsel that any topic brought out during direct, can be a topic for cross examination. See FED. R. OF EVID. 611(b) (“Cross-examination should not go beyond the subject matter of the direct examination and matters affecting the witness's credibility.”)

¹⁴ As a fact witness, Dr. Kavcic could testify about the facts surrounding the patents in suit. To the extent he offered any testimony in the form of opinion, he is limited by Rule 701 to those opinions based rationally on his own perceptions and helpful to understanding his testimony. FED. R. EVID. 701. As this Court stated in *Autoforge, Inc. v. Am. Axle & Mfg., Inc.*, “[t]he modern trend favors the admission of [lay] opinion testimony, provided that it is well founded on personal knowledge and susceptible to specific cross-examination”. 2008 WL 65603 (W.D. Pa. Jan. 4, 2008) (allowing the President and sole shareholder of the Plaintiff Corporation,

Despite same on November 29 and 30, 2012, Dr. Kavcic testified at length about his invention, the process he took in developing it, and what is expressed in the claims of his patents. (Docket No. 673, 674). As stated, the patents in suit deal with high density magnetic recording sequence detectors, a highly technical area where computer science, electronics, physics and higher math merge. *See* ‘839 Patent; ‘180 Patent. (Docket No.1 Ex 2, 3). For the Court and jury to understand any of Dr. Kavcic’s testimony, an explanation of certain scientific terms, concepts, and equations was needed. In that vein, Dr. Kavcic covered the background of data dependence, signal dependence, and his opinion on what the claims of his patent covered. (Docket No. 673 at 147-239, at 229 ln 7). He discussed the topics of trellises, branch metric value calculations, the signal dependence of media noise, correlated signal dependent noise, his invention story and the equations of both his patent and scientific papers. (Docket No. 673, 674). He went through over 50 slides on these topics and even used the document projector to highlight relevant equations for the jury. (*Id.*) While his testimony was not deemed “expert testimony” as Dr. Kavcic was not proffered as an expert witness under Rule 702 and did not prepare expert reports in accord with the procedures set forth under Rule 26 of the Federal Rules of Civil Procedure, the factual testimony he offered was highly detailed, technical and broad.¹⁶ *See Voice Technologies Group, Inc. v. VMC Systems, Inc.*, 164 F.3d 605, 616 (Federal Circuit 1999).

Autoforge, to offer lay opinion testimony based on facts within his particularized knowledge by virtue of his position at Autoforge and to the extent a proper foundation was laid.)

¹⁵ Beyond the concerns of lay opinion testimony, the Federal Circuit has also cautioned that District Courts should not permit inventor testimony that is effectively a “creative reconstruction of an invention by interested persons”, such as the named inventor, Dr. Kavcic, who also has a 25% share in any damages awarded. *Voice Technologies* 164 F 3d. at 615.

¹⁶ The Court gave the jury limiting instructions on Dr. Kavcic’s role as a fact witness, not an expert witness, several times throughout his testimony. (Docket No. 673 at 191, 237; 674 at 170).

Since Dr. Kavcic addressed all of these topics including his understanding of the claims of his patents on direct examination, they could be probed on cross examination. *See* Fed. R. of Evid. 611(b). Hence, this email could be employed on cross. *See* Fed. R. of Evid. 401, 403. As an engineer in the field, Dr. Kavcic is a “person having ordinary skill in the art” (“PHOSITA”). 35 U.S.C.A §103(a). His understanding of the background of his invention and what he deems to be the “break throughs” of his invention, could be an aid to the fact finder in determining the obviousness of his invention to a PHOSITA.¹⁷ It could also play a part in the Court’s analysis of willfulness as well as the copying story promoted by CMU.

Given Dr. Kavcic’s testimony, in light of the above discussion of pertinent authority, the Court permitted cross examination on same and admitted Marvell’s Ex. DX-189 at trial on November 30, 2012. (Docket No. 674 at 36-37).

s/ Nora Barry Fischer
Nora Barry Fischer
U.S. District Judge

Date: December 17, 2012
cc/ecf: All counsel of record.

¹⁷ Under 35 U.S.C.A §103(a) a “patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *See also Celsis In Vitro, Inc. v. CellzDirect, Inc.*, 664 F.3d 922, 928 (Fed. Cir. 2012). CMU and Marvell agree that the PHOSITA in this case would be a person with at least a Master’s degree in electrical engineering who had specialized in data detection and signal processing and had at least two years’ work experience in the industry. (Docket No. 175 at 10). Dr. Kavcic fits that profile.